

List of publications

National Scientific Students' Paper:

Estimating the risk of Down's syndrome term pregnancy using age and serum markers. ---- ., 1st prize awarded by the 29th National Scientific Students' Conference

PhD Thesis: Spatial stochastic models and their applications

Papers:

1. Baran, S., Sikolya, K., Veress, L., Estimating the risk of a Down's syndrome term pregnancy using age and serum markers: Comparison of various methods. *Comm. Statist. Simulation Comput.* **42** (2013), no. 7, 1654-1672. (IF: 0.288; Math.Rev.: MR3042791; Zbl pre06175740; Scopus).
2. Baran, S., Sikolya, K., Parameter estimation in linear regression driven by a Gaussian sheet. *Acta Sci. Math. (Szeged)* **78** (2012), no. 3-4, 689-713. (Math.Rev.: MR3057694; Scopus)
3. Baran, S., Sikolya, K., Parameter estimation in linear regression driven by a Wiener sheet. *Ann. Math. Inform.* **39** (2012), 3-15. (Math.Rev.: MR2959877; Zbl 1265.60097; Scopus)
4. Baran, S., Sikolya, K., Stehlík, M., On the optimal designs for prediction of Ornstein-Uhlenbeck sheets. *Statist. Probab. Lett.* **83** (2013), 1580-1587. (IF: 0.531; Math.Rev.: MR3048326; Zbl pre06236673; Scopus)
5. Baran, S., Pap, G., Sikolya, K., Testing stability in a spatial unilateral autoregressive model. *Comm. Statist. Theory and Methods.* **45** (2016), 933-949 (IF: 0.300)
6. Baran, S., Sikolya, K., Stehlík, M., Optimal designs for the methane flux in troposphere. *Chemometr. Intell. Lab. Syst.* **146** (2015), 407-417. (IF: 2.321)

Conference Proceedings:

1. Estimating the risk of Down's syndrome term pregnancy using age and serum markers. 14th Young Statisticians Meeting (YSM 2009), Basovizza/Trieste, Italy, October 16-18, 2009.
2. Estimating the risk of a Down's syndrome term pregnancy: comparison of various methods. 8th International Conference on Applied Informatics (ICAI 2010), Eger, Hungary, January, 27-30, 2010. (poster)
3. Parameter estimation in linear regression driven by a Wiener sheet. Conference on Stochastic Models and their Applications (CSMA 2011), Debrecen, Hungary, August 22-24, 2011. (poster)

4. Estimating the risk of a Down's syndrome term pregnancy using age and serum markers. 2nd Conference of the Central European Network (CEN 2011), , Zurich, Swiss, September 12-16, 2011.
5. Estimating the risk of a Down's syndrome term pregnancy using age and serum markers. ITSM 2011, Debrecen, Hungary, October 27, 2011.
6. Parameter estimation in linear regression driven by a Gaussian sheet. 10th German Probability and Statistics Days (GPSD 2012), Germany, March 5-9, 2012.
7. Parameter estimation in a spatial linear regression model. The Third Conference of PhD Students in Mathematics (CSM 2012), Szeged, Hungary, June 28-30, 2012.
8. Testing stability in a spatial unilateral autoregressive model. 8th World Congress in Probability and Statistics, Istanbul, Turkey, July 9-14, 2012.
9. On the optimal designs for prediction of Ornstein-Uhlenbeck sheets. 15th Applied Stochastic Models and Data Analysis (ASMDA 2013), Mataro (Barcelona), Spain, June 25-28, 2013.
11. Optimal designs for prediction of shifted Ornstein-Uhlenbeck sheets. 29th European Meeting of Statisticians (EMS 2013), Budapest, Hungary, July 20-25, 2013.
12. Stability testing for a special Pickard model. 18th European Young Statisticians Meetings (EYSM 2013), Osijek, Croatia, August 26-30, 2013.
13. Optimal designs for the methane flux in troposphere. 11th German Probability and Statistics Days (GPSD 2014), Ulm, Germany, March 4-7, 2014.
14. Optimal designs for parameters of shifted Ornstein-Uhlenbeck sheets and of modified Arrhenius model observed on a regular grid. 3rd Stochastic Modeling Techniques and Data Analysis (SMTDA 2014), Lisbon, Portugal, June 11-14, 2014.
15. Application of optimal designs for the methane flux in troposphere. 12th Workshop on Stochastic Models, Statistics and Their Applications (SMSA 2015), Wroclaw, Poland, February 15-19, 2015.